

## AMENDMENTS TO THE CLAIMS

### Listing of Claims:

- 1-3. (Cancelled)
4. (Currently amended) A transformed plant characterized in that it expresses at least one hemoglobin or at least one leghemoglobin and at least one [[H]]hemoglobin.
5. (Currently amended) The transformed plant according to claim 4, characterized in that the leghemoglobin and/or hemoglobin is are independently derived from a plant selected from plants from the group consisting of *Lupinus luteus*, *Glycine max*, *Medicago sativa*, *Medicago trunculata*, *Phaseolus vulgaris*, *Vicia faba*, *Pisum sativum*, *Vigna unguiculata*, *Lotus japonicus*, *Psophocarpus tetragonolobus*, *Sesbania rostrata*, *Casuarina glauca*, and *Canvalaria lineate*, *Physcomitrella patens*, *Arabidopsis thaliana*, *Gossypium hirsutum*, *Oryza sativa*, *Brassica napus*, *Lycopersicon esculentum*, *Hordeum vulgare*, *Zea mays*, *Trema tomentosa*, or *Parasponia rigida*.
6. (Currently amended) The transformed plant according to claim 4, characterized in that the leghemoglobin is derived from *Lotus japonicus* and/or the hemoglobin is derived from *Lotus japonicus* and *Arabidopsis thaliana*.
7. (Currently amended) The transformed plant according to claim 4, characterized in that it expresses the leghemoglobin and/or the hemoglobin in a storage-organ-specific manner.
8. (Currently amended) The transformed plant according to claim 4, characterized in that it expresses the ~~at least one~~ leghemoglobin and/or the hemoglobin in a tuber-specific and/or seed-specific manner.
9. (Currently amended) The transformed plant according to claim 4, characterized in that it comprises ~~at least one of the sequences of SEQ ID NOS: 3 and 5 coding for hemoglobin or at least one~~ nucleic acid molecule having a sequence of as set forth in SEQ ID NO: 1 coding for a leghemoglobin and at least one of the nucleic acid molecule having a sequence[[s]] of as set forth in SEQ ID NO[[S]]: 3 and 5 coding for hemoglobin.
10. (Currently amended) The transformed plant according to claim 4, characterized in that it comprises a nucleic acid molecule having a nucleotide sequence[[s]] with approximately 70% at least 90% identity with the a sequence[[s]] of as set forth in SEQ ID NO[[S]]: 1, 3 and/or 5 and

codes for a leghemoglobin and a nucleic acid molecule having a nucleotide sequence with at least 90% identity with a sequence as set forth in SEQ ID NO: 5 and codes for a hemoglobin.

11. (Previously presented) The transformed plant according to claim 4, characterized in that it produces starch and/or oil.

12. (Currently amended) The transformed plant according to claim 4, characterized in that it is a monocotyledonous crop plant, ~~in particular of the species *Gramineae*.~~

13. (Currently amended) The transformed plant according to claim 4, characterized in that it is a dicotyledonous crop plant, ~~in particular from the family, *Asteraceae*, *Brassicaceae*, *Compositae*, *Cruciferae*, *Cucurbitaceae*, *Leguminosae*, *Rubiaceae*, *Solanaceae*, *Sterculiaceae*, *Theaceae* or *Umbelliferae*.~~

14. (Previously presented) The transformed plant according to claim 13, characterized in that it is potato, *Arabidopsis thaliana*, soybean or oilseed rape.

15-23. (Cancelled)

24. (Currently amended) A transformed plant comprising at least one ~~gene structure according to claim 22~~ first vector comprising a nucleotide sequence with at least 90% identity with a sequence as set forth in SEQ ID NO: 1 coding for a leghemoglobin, and at least one second vector comprising a nucleotide sequence with at least 90% identity with a sequence as set forth in SEQ ID NO: 5 coding for a hemoglobin.

25-44. (Cancelled)

45. (Currently amended) A method for the production of starch and/or oil, ~~characterized in comprising growing the transformed that a plant according to claim 4 is used and recovering the starch and/or oil is recovered~~ from the transformed plant.

46. (New) The monocotyledonous crop plant according to claim 12, characterized in that it is a *Gramineae* species.

47. (New) The dicotyledonous crop plant according to claim 13, characterized in that it is a *Asteraceae*, *Brassicaceae*, *Compositae*, *Cruciferae*, *Cucurbitaceae*, *Leguminosae*, *Rubiaceae*, *Solanaceae*, *Sterculiaceae*, *Theaceae* or *Umbelliferae* species.

48. (New) The dicotyledonous crop plant according to claim 13, characterized in that the plant is selected from the group consisting of *Borago officinalis* (borage), *Brassica campestris*, *Brassica napus*, *Brassica rapa* (mustard or oilseed rape), *Cannabis sativa* (hemp), *Carthamus tinctorius* (safflower), *Cocos nucifera* (coconut), *Crambe abyssinica* (crambe), *Cuphea* species, *Elaeis guinensis* (African oil palm), *Elaeis oleifera* (American oil palm), *Glycine max* (soybean), *Gossypium hirsutum* (American cotton), *Gossypium barbadense* (Egyptian cotton), *Gossypium herbaceum* (Asian cotton), *Helianthus annuus* (sunflower), *Linum usitatissimum* (linseed or flax), *Oenothera biennis* (evening primrose), *Olea europea* (olive), *Oryza sativa* (rice), *Ricinus communis* (castor-oil plant), *Sesamum indicum* (sesame), *Triticum* species (wheat), *Zea mays* (maize), walnut and almond.

49. (New) The transformed plant according to claim 24, characterized in that the first vector comprises a nucleotide sequence as set forth in SEQ ID NO: 1 and the second vector comprises a nucleotide sequence as set forth in SEQ ID NO: 5.